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**Subject:** FW: OW Management Report for 2017 Hurricanes - 9/29/2017  
**Date:** Friday, September 29, 2017 3:15:57 PM  
**Attachments:** [OW Management Report Harvey Irma 9292017.docx](#)

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**From:** EOC Water

**Sent:** Friday, September 29, 2017 3:14 PM

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**Subject:** OW Management Report for 2017 Hurricanes - 9/29/2017

Attached and pasted below is the OW Management Report for Hurricanes Harvey, Irma and Maria for 9/29/2017.

Kevin Tingley  
EOC Water Desk

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**Note: Hurricane Irma Report begins on page 6; Hurricane Harvey Report is on page 8.**

**EPA HQ:**

Water Desk Staffing for the coming week:

Friday 9/28-Saturday 9/29: Kevin Tingley

Sunday 9/30: Nushat Thomas

Monday 10/1: Kevin Tingley

Tuesday 10/2-Wednesday 10/3: Sam Hernandez

Thursday 10/4-Friday 10/5: Holly Arrigoni

### **Notable Updates**

- On September 26, 2017, EPA Region 6 received a request from the Texas Water Development Board to waive the American Iron and Steel provision of the Drinking Water and Clean Water State Revolving Fund for eligible projects. The public interest waiver request from TWDB is posted for the required 15-day public comment period which closes on Oct 13, 2017.
- CEPD – All CEPD personnel are accounted for and safe. Thanks to the CID/NCERT agents that assisted CEPD locate our EPA employees.
- EPA has received several requests for DW/WW analytical and assessment and sampling support from USACE, PRASA, and PRDOH. REOC and IOF staff are preparing supporting documentation to support the eventual Mission Assignment that will cover all of these requests.
- According to PRASA, 45% of clients have access to drinking water. Department of Health continues to communicate water boil advisory. PRASA's main challenge to provide drinking water is access to diesel to energize pumping station.
- EPA in coordination with VIWMA contacted several of the waste water facilities on all three islands to determine the current status of the facility. The report will be used for prioritization for field assessments and providing critical resources to the facilities. Most of the facilities are currently running on generator power. Fuel is becoming an issue on the islands and the majority of the facilities on generator power may not be able to sustain operations due to lack of fuel.
- Florida: The USACE and the Water Protection Division has completed their field mission of assisting FDEP in assessing the status of drinking water and wastewater facilities. The Facility Assessment Support Team (FAST) completed 592 assessments of the 1,112 non-community drinking water systems assigned to the team by FDEP. Pending receipt of new assignments, EPA Water Team members have demobilized.
- In Florida, of the 478 Boil Water Notices issued since September 11, 420 have been rescinded and 58 remain active.
- Hurricane Harvey has transitioned from response to recovery activity. Contact Claudia Hosch, EPA Region 6 Recovery Coordinator, with questions at 214-665-6465.

### **Hurricane Maria Update – Puerto Rico and US Virgin Islands**

Tropical Storm Maria will continue moving east and away from the U.S. East Coast, and the risk for rough surf, rip currents, and beach erosion will subside by late Friday. Deep tropical moisture is expected to bring numerous showers and thunderstorms to Puerto Rico and the U.S. Virgin Islands by this afternoon through Saturday night. The potential exists for cloud to ground lightning and heavy rainfall which may cause additional flash flooding especially for areas that remain saturated from recent heavy rainfall. Rainfall amounts of 2 to 4 inches will be possible. The threat for heavy rainfall also exists over southern Florida including the Florida Keys over the next few days which could also bring localized flash flooding. Moderate to major Tidal concerns will be an issue along the Southeast coast Sunday into Tuesday.

The Puerto Rico (PR) and USVI Emergency Operations Centers (EOCs) remain at Full Activation.

As of 9/27/17, the personnel information from the EPA re-deployment plan was provided to FEMA so flights and lodging needs can be coordinated for the first wave of EPA responders. Flights for EPA personnel continued to be postponed, as the priority is still the life-saving and life sustaining mission. We will keep pursuing FEMA flights, however we are also coordinating with the U.S. Coast Guard for possible flight space as they move people and equipment into the U.S. Caribbean. Suitable lodging on PR remains a challenge. We continue to pursue berthing space on the various FEMA supported vessels arriving in PR.

- Puerto Rico: 120 people (50 people on 9/30 + 50 people on 10/1 + 20 people on 10/7)
- St Croix: 68 people (34 people on 9/30 + 34 people on 10/2)
- St Thomas: 68 people (34 people on 10/1 + 34 people on 10/2)

CEPD – All CEPD personnel are accounted for and safe. Thanks to the CID/NCERT agents that assisted CEPD locate our EPA employees.

### **Local/State Activities**

**Puerto Rico:**

US Department of Energy daily report establishes that 4% of PREPA clients have reestablished service. Palo Seco and San Juan Power Plants are operating. A number of hospitals in San Juan, as well as parts of the Luis Munoz Marin Airport, have been re-energized.

**U.S. Virgin Islands (USVI):**

As of 0830 on 9/27/2017 (no update for 9/29), power outages for USVI include: St. Thomas: 19,574 (99%); St. John: 2,893 (100%); and St. Croix: 25,274 (90%). FEMA has indicated that there will be two power-supplied labs: one in St. Thomas (supplied with a functioning generator) and one in St. Croix (pending generator installation).

Emergency call centers have been activated in both island districts (7 am - 11 pm daily). The call centers will be the primary means by which residents can report service interruptions as reconstruction and restoration takes shape. The Emergency Call Center number on St. Croix is 340-773-0150 and on St. Thomas - St. John, the number is 340-774-1424.

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**Federal Activities****FEMA:**

The USACE has received a mission assignment under ESF 3 for water and wastewater Subject Matter Experts (SMEs) to assess PRASA facilities in response to Hurricane Maria in Puerto Rico. USACE and EPA are coordinating a potential sub-tasking for EPA support similar to that done in Florida for Hurricane Irma.

FEMA National Response Coordination Center (NRCC) remains at Level I (Full Activation). The NRCC in Colt's Neck NJ has transferred all operations from that location to the NRCC in Washington, D.C. Personnel are developing plans for the resumption of post-storm activities, including assessments at regulated facilities and NPL/Removal sites.

**EPA Region 2 Activities**

On 9/23/2017, EPA issued an order to FEMA and the Department of Defense (DOD) that provides direction on supplying of clean drinking water in the U.S. Virgin Islands in response to impacts to the island's drinking water system from Hurricane Maria and Hurricane Irma. The order authorizes FEMA and DOD to install and operate temporary water treatment units that will provide a supply of clean drinking water. FEMA/DOD are working to deploy 4 Reverse Osmosis (RO) units in St Croix to deliver drinking water to the following impacted areas (Stoney Ground, Cane Bay, Altimia and Cramer Park). The EPA Order expires on 10/8/17. Tentative locations for the RO units have been selected on the Western side of the island, but treatment has not started. The order is at <https://response.epa.gov/sites/12403/files/USVI%20SDWA%20Order%20Sept%2023.pdf>.

**Drinking Water and Wastewater System Status****Puerto Rico:**

According to PRASA, 45% of clients have access to drinking water. Department of Health continues to communicate water boil advisory. PRASA's main challenge to provide drinking water is access to diesel to energize pumping station. Of PRASA's total 52 total plants, 9 are operational, 19 are non-operational, and 24 have an unknown operational status.

On 9/28 a meeting was held at the FEMA IOF/PREMA EOC to initiate planning and coordination relating to the Water & Waste Water response needs of PR. Present at the meeting were, PRASA, EPA, USACE, and FEMA. Main highlights discussed during the meeting:

- PRASA, EPA, USACE and FEMA will share information about efforts/missions to prevent duplication of efforts and avoid gaps.
  - PRASA owns 35% of the island's public water systems, which serves 96% of the population. The other 65% water systems are Non-PRASA owned and serve 4% of the population.
  - PRASA has not been able to access all facilities to assess infrastructure damages, due to road blockages and communication challenges.
  - PRASA and EPA are coordinating waste water treatment plant visits and making assessments for damages and prioritization.
  - EPA is also aiding PRASA with several collapsed sanitary main sewer pipes and the necessary measures to be taken to comply with environmental regulations.
  - PRASA has contracted 5 Lead Contractors to also assess damages and provide cost estimate for temporary and permanent repairs.
1. PRASA's main challenge to provide potable water is to have a consistent diesel fuel supply to energize their pumping stations.

EPA has received several requests for DW/WW analytical and assessment and sampling support from USACE, PRASA, and PRDOH. REOC and IOF staff are preparing supporting documentation to support the eventual Mission Assignment that will cover all of these requests.

CEPD began DW facility assessments on 9/27, with a plan to assess three DW facilities on 9/28.

CEPD and CWD have continued phone calling on the 300 non-PRASA drinking water facilities; however, as many of the facilities are remote, contact has yet to be made with a facility. Voice messages have been left.

CEPD began PRASA WW facility assessments on 9/26, with 4-6 facilities per day. CEPD DW and WW section conducted assessments at 7 PRASA WWTP facilities and an assessment was conducted at the Buckeye Partners facility in Yabucoa.

**Virgin Islands:** <http://www.viwapa.vi>

[U.S. Virgin Islands Water and Power Authority \(WAPA\)](http://www.viwapa.vi)

[www.viwapa.vi](http://www.viwapa.vi)

U.S. VIWAPA Home page ... Bill Pay; Change Address; Consumer Production Reports; Energy Conservation Tips

EPA will continue working with DPNR to prioritize drinking water sampling locations for St. Croix, St. Thomas, and St. John. In addition to developing the target lists, EPA and DPNR will perform some sampling and assessments at several facilities.

Ocean Systems water testing: EPA is still working to procure a contract with Ocean Systems for sampling and lab analysis on STX, STT, and STJ. The Ocean Systems lab on STT is functioning under generator power. The Ocean Systems lab on STX is not operational due to lack of power, EPA has requested and is waiting for FEMA to provide a generator for this facility. Until a generator is secured for the STX lab, EPA will continue to analyze the collected water samples on STX utilizing a Colilert field test kit for the presence/absence of bacteria.

In coordination with EPA, DPNR notified and conducted follow-up site visits/inspections of 2 drinking water systems that tested positive for E. Coli on 9/25/17. Disinfection of the systems was conducted by the proprietor.

Results from 9/26/17 Drinking Water Sampling indicated 8 community and non-transient/non-community drinking water systems were positive for E. Coli. EPA is coordinating with DPNR to notify the proprietors of the affected systems and conduct disinfection of the systems.

EPA collected drinking water samples from 12 public water systems on 9/27. EPA used Colilert to analyze these 12 samples with results due 9/29.

VIWAPA is building additional storage on all three islands slowly. St. John has four days of emergency storage, St. Thomas three days, and St. Croix three days.

The Concordia potable water pump station on St. Croix is on line. Overnight, the Kingshill tank should begin to build storage and the west end of the island should begin to receive potable water service. EPA in coordination with VIWMA contacted several of the waste water facilities on all three islands to determine the current status of the facility. The report will be used for prioritization for field assessments and providing critical resources to the facilities. Most of the facilities are currently running on generator power. Fuel is becoming an issue on the islands and the majority of the facilities on generator power may not be able to sustain operations due to lack of fuel.

#### STX Waste Water:

- The main treatment station located at the airport is operating on primary power. No critical needs at this time.
- 2 main feeders need a generator for power, 1 feeder has a generator
- 3 lift stations are bypassing due to no power. All need a generator

#### STT Waste Water

- 4 pump stations are currently bypassing to residential streets due to no power. All need a generator.
- 1 pump station is operating on generator power
- 3 WWTP are currently operating on generator power
- 1 WWTP is having issues with their clarifier

#### STJ Waste Water

- 3 facilities operating on generator power
- 3 facilities not operational due to no power. All need a generator

## Hurricane Irma Update – Florida

### Local/State and other Federal Agency Activities

The FL EOC is at Partial Activation and the MS, TN, and, NC EOCs are at Monitoring. The EPA Region 4 REOC remains at Level 3 activation. The REOC will go to remote operations over the coming weekend.

The FEMA Region IV RRCC transitioned from Level II (full activation) to normal operations. All members of the RRCC were released, including staff under ESF-10.

### EPA Region 4 Activities

The USACE and the Water Protection Division has completed their field mission of assisting FDEP in assessing the status of drinking water and wastewater facilities. The FAST completed 592 assessments of the 1,112 non-community drinking water systems assigned to the team by FDEP. Pending receipt of new assignments, EPA Water Team members have demobilized.

### Drinking Water and Wastewater System Status

**Florida:** See tables below for damage assessment information for community drinking water systems and POTWs.

Boil water notice (BWN) or advisories are published on the Florida Department of Health's website (<http://www.floridahealth.gov/environmental-health/drinking-water/boil-water-notice.html>).

Total Number of Community Drinking Water Systems (CWS) and Total Population Served in Florida				
	Large CWS (Over 3,300)		Small CWS (under 3,300)	
	# Systems	Population Served	# Systems	Population Served
Operational:	395	19,210,964	1,192	683,098
Partially Operational:	1	77,500	14	15,084
Non Operational:	0	0	3	255
Unknown:	0	0	34	10,916
Totals:	396	19,288,464	1,244	710,553
Boil Water Notices	58 Active BWN			
<b>Comments:</b> Data is compiled from the State of Florida's StormTracker system. The inventory of public water systems in StormTracker consists of all 1,630 Community Water Systems (CWS) and 11 non-community public water systems regulated by the State. These facilities were identified by Florida as the most critical for operational status determinations following major disasters. For convenience, all 1,641 facilities are reported as “CWS” in this table.				
<b>Operational:</b> Facility producing drinking water for greater than 90% of customers under normal operating conditions				
<b>Partially Operational:</b> Facility producing drinking water under adverse conditions and/or supplying less than 90% of customers				
<b>Non Operational:</b> Facility not producing or supplying drinking water				
<b>Unknown:</b> Status of facility unknown at this time				

Total Number of Publicly-Owned Wastewater Treatment Plants (POTWs) All Florida Counties			
	NPDES Permitted Facilities		State Permits (Non-NPDES)
	POTW	Non-POTW (Industrial)	
Operational:	143	242	1,766
Partially Operational:	2	1	33
Non Operational:	0	0	88
Unknown:	0	0	121
Totals:	145	243	2,008
<p>Comments: Data is compiled from the State of Florida's StormTracker system. The NPDES universe tracked in StormTracker represents a subset of the total inventory of NPDES permitted systems that are identified by the State of Florida as the most critical for operational status determinations following major disasters.</p> <p>This report shows that 99% of the POTWs are Operational, no change since last report of 99%.</p> <p>This report shows that 99% of the Non-POTW NPDES Permitted Facilities tracked in StormTracker are Operational, no change since last report of 99%.</p> <p><i>Operational:</i> Facility &amp; associated collection system is properly conveying, and effectively providing wastewater treatment, in accordance with applicable permit conditions and regulations. (Operating on full or backup generator power.)</p> <p><i>Partially Operational:</i> Facility and/or associated collection system is properly conveying and providing wastewater treatment at a compromised capacity, i.e. one or more treatment train components are non-operational, one or more lift stations are non-operational, etc.</p> <p><i>Non Operational:</i> Facility and/or associated collection system is not providing wastewater treatment in accordance with applicable permit conditions and regulations.</p> <p><i>Unknown:</i> Status of facility unknown at this time</p>			

## Hurricane Harvey Update

### Federal Activities:

Hurricane Harvey has transitioned from response to recovery activity. Contact Claudia Hosch, EPA Region 6 Recovery Coordinator, with questions at 214-665-6465.